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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,622	06/08/2001	Qianjun Liu	4143/CIP-1	2232

7590 03/31/2004

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EXAMINER

NGUYEN, JENNIFER T

ART UNIT	PAPER NUMBER
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2674

9

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/877,622

Applicant(s)

LIU ET AL.

Examiner

Jennifer T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 13, 16-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 21 is/are allowed.
- 6) ☒ Claim(s) 1-5, 13, and 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

1. This Office action is responsive to amendment filed on 01/16/2004.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13, 16, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation "said voltage gradient" in line 15 of claim 13. There is insufficient antecedent basis for this limitation in the claim.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. Patent No. 6,476,799) in view of Ronkka et al. (U.S. Patent No. 6,002,387).

Regarding claims 1 and 18, referring to Figs. 1-4, Lee teaches a touch sensing system for identifying at least one active touch stimulating device (100), an apparatus for powering the active touch stimulating device (100) comprising: a touch sensing area (10) in which said at least one active touch stimulating device (100) operates; a transducer (20) disposed operatively

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associated with said touch sensing area (10) for transmitting a power signal to said at least one active touch stimulating devices (100); each of said active touch stimulating devices (100) including means for receiving said power signal and converting said power signal to electrical operating power for said active touch stimulating device (100); said transducer (20) includes a first antenna extending about the perimeter of said touch sensing area (10) and further including means for connecting said power signal to said first antenna to generate an EM power field across said touch sensing area (see abstract, col. 3, lines 29-67, col. 4, lines 1-9, and col. 6, lines 9-45).

Lee differs from claims 1 and 18 in that he does not specifically teaches the touch stimulating device includes touch signaling means incorporating spread spectrum signals. However, Ronkka teaches a touch stimulating device (i.e., a pointing device includes optical transmitter and receiver) includes touch signaling means incorporating a light waves (col. 5, lines 59-67). Although Ronkka does not specifically teach light waves is spread spectrum signals, however, it would have been obvious to obtain the light waves is spread spectrum signals in order to provide a lower power consumption device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the touch stimulating device includes touch signaling means incorporating spread spectrum signals as taught by Ronkka in the system of Lee in order to provide a high speed, high capacity, and low power consumption transmission device.

Regarding claim 2, Lee further teaches at least one touch stimulating device (100) includes a second antenna (110) adapted to receive power from said EM field within said touch sensing area (10) (col. 6, lines 9-45).

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Regarding claim 3, Lee further teaches second antenna (110) is a resonant antenna tuned to the frequency of said EM field (col. 6, lines 9-45).

Regarding claim 5, Lee further teaches the resonant antenna (110) includes an inductor coil (L2) and a capacitor (C1) connected to be tuned to the frequency of said EM field (col. 6, lines 9-45).

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. Patent No. 6,476,799) in view of Ronkka et al. (U.S. Patent No. 6,002,387) and further in view of Katsurahira et al. (U.S. Patent No. 5,682,019).

Regarding claim 4, the combination of Lee and Ronkka differs from claim 4 in that it does not specifically teach rectifying means connected to the output of said resonant antenna to generate operating power for said active touch stimulating device. However, referring to Figs. 1 and 4, Katsurahira teaches rectifying means (19) connected to the output of said resonant antenna (11, 12) to generate operating power for said active touch stimulating device (col. 2, lines 33-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the rectifying means connected to the output of said resonant antenna to generate operating power for said active touch stimulating device as taught by Katsurahira in the system of the combination of Lee and Ronkka in order to provide the DC power for operating the touch input device.

7. Claims 19 and 21 are allowed.

8. Applicant's arguments with respect to claims 1-5, 13, 16-19, and 21 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jennifer T. Nguyen** whose telephone number is **703-305-3225**.

The examiner can normally be reached on Mon-Fri from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reach at **703-305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

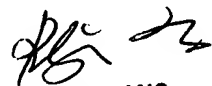
Washington, DC. 20231

**Or faxed to: 703-872-9306 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

JNguyen  
3/25/2004

  
**REGINA LIANG**  
**PRIMARY EXAMINER**